

CHELMSFORD AMATEUR RADIO SOCIETY

NEWSLETTER No.246

August 1986

NEXT MEETING - SOLAR CYCLE 21

The committee, in their endeavours to provide interesting material for the clientele, have come up with something new... so new in fact that the RSGB librarian was not even aware of its existence... a Tape-Slide Lecture by Charlie Newton, G2FKZ entitled "Solar cycle 21"

Charlie has produced this lecture in response to the success of his live performance at the VHF Convention. It provides an in-depth review of the effects of the Sun on the earth's ionosphere and the max's and min's of the Solar Cycle in terms of radio propagation.

The audio/visual department will be in action at 7.30pm on Tuesday 5th August at the Marconi College, Arbour Lane, Chelmsford.

Please note that the jackpot raffle for a crisp £5 note will be drawn at this meeting.

DATES FOR YOUR DIARY

5 August - Sunspot Cycle Number 21.
2 September - Antarctic Survey.
7 October - A.G.M. and Test your Rig.
More dates in DF NEWS.

R.S.G.B. BUREAU

If you haven't heard from any other source, the Bureau will be closed for incoming cards throughout the month of August.

NEW MEMBER

The Society extends a welcome to Malcolm Lees, G4KGL. Incidentally, the membership now stands at 73.

SPECIAL EVENT STATION GB4NSC

The weather was not very kind to this event, however, a small crew from CARS managed to set up two stations at Nabbotts Primary School.

The HF station comprised an Icom 730, kindly loaned by Arrow Electronics Limited and the G4FKH 'All HF Special' Antenna. The VHF station was G6HKM's Trio 9130 and the G3PMX 'Hill-top' 9 Element Yagi Kit. The equipment operated faultlessly throughout the afternoon of the Fete, completing 55 QSO's on 80, 40 20 and 2 metres. All the contacts will be confirmed with 'Special Event' cards produced on the trusty BBC Micro-computer.

The illustrated competition organised by Eric G4WMT attracted wide interest with some 30 entrants to guess the origins of a collection of QSL cards. Overall it can be said that this was a good public demonstration of Amateur Radio! Many thanks to all who lent a hand throughout the day.

LAST MEETING - Brian G0BDS.

To all those who thought they had lots of watts at home, this lecture proved that only a few people can boast real power and the C.E.G.B. is one of them, 20 Gigawatts of energy during the Royal Wedding in 1981 as a peak demand, then in January, 1985 46 Gigawatts of peak demand.

Nigel took us on a simulated conducted tour around various power stations of all types of prime energy source.

The first power station as we now call them was opened at Deptford as long ago as the 1880's, but was very small by today's standard, which often now are in the region of 660 up to 1300 Megawatts for each alternator set with say six sets at the one power station.

It was interesting to hear how the domestic load requirements are effected by advertising through the media which puts up sales of appliances and thus demand (the XYL's food mixer, curling tongs etc).

Gwyn (G4FKH) came in for some good humoured ribbing when "Best Welsh Nuts" were mentioned in relation to coal stocks and the past Miners' strike, which raised the point of how flexible the system can be. During the miners strike, the balance between coal and oil as the main energy source could be seen to alter from the normal of coal to one of oil.

With the current 'Nuclear' problems experienced in Russia and all the other little leaks of "no significance" from Sellafield it was nice to be reassured that safety was uppermost in the C.E.G.B.'s mind. Examples of fuel rod cases used in "Magnavox" and "Advance Gas Reactor" type nuclear stations were on display, although they were unused and not radioactive, it was still unnerving to handle them.

Nigel then briefly described the alternators and their steam turbine drives, showing slides to indicate the sheer physical size of the rotors and stators, the stators having water cooled conductors to allow an increase in winding currents able to flow.

The whole of the C.E.G.B. it seems was geared to efficiency with vast staff reductions over the years but with considerable increase in generated power. Kings North Power Station over on the north Kent coast could boast of being 37-48% efficient, which is good when you consider raw black dirty low grade coal being turned into clean sparkling watts at your command twenty-four hours a day, 365 days a year (well nearly).

Many questions were asked and answered with professional ease by Nigel who no doubt was pleased to have such a responsive audience. In fact it was 10.10p.m. when our Chairman Dick G3WHR finally called time and we all left a lot wiser.

monitor GB3DA in case there were any problems. At about 7.40 Dick called through to report that a good signal had been heard by 10 competitors at Fordham Heath, and 10 teams were now streaming down the A12 towards us, what a relief! It was very peaceful in our hidey-hole. I had cut a crawling-hole under the thicket and we were both well hidden from the outside world.

Just after the 8.00pm transmission, we heard voices and footsteps. Surely not so soon, but the footsteps passed by us, just walkers. The next sound was someone running up the track at about 8.15. Much thrashing about in the undergrowth followed, and then we saw G3WHR walking by. He had seen the aerial and was looking for a way in. He saw our crawling hole and said "G3WHR" at 8.18pm. Thirty seconds later G4TEB came in.

All throughout our trials, we had worked from the field side of the thicket, thinking that everyone would run down the track and therefore we must not trample the undergrowth on the track side and lead them in.

Very soon however our cover from that side was blown as Alan G4PQY came crashing through the undergrowth leaving a path of trampled bushes behind him. The next person in G4FJC widened the path and even broke through to the field side.

The next few minutes saw a flurry of activity around the thicket, with bush-breaking very much in evidence, and by 8.36 all but one competitor was in and, he arrived at 8.50.

The station was then dismantled, and the aerial taken down. The surrounding undergrowth showed signs of frantic activity and the passing of several pairs of size 9's, and it was with a sense of satisfaction that we made our way to the Green Man to hear what the competitors thought, and to hear their tales of exploration.

Everyone seemed pleased with the results, not least of all us for getting a signal to the start. Some people had obtained some pretty wild bearings, leading to places like Witham and Ulting gravel pits, but on the whole a very successful evenings DF hunting. The results were:-

2018	G3WHR	2031.5	G3WMM
2018.5	G4TEB	2032	G4TFP
2020	G4PGY	2035	G4JVM
2023	G4FJC	2036	Mike Farmer
2030	G4JAC	2050	Colin Baisden

LETTERS TO THE EDITOR

I am pleased to report that one letter has been received for publication this month.... keep them coming!

Dear Editor,

I am writing to express some of my pet hates:-

- 1) People who whistle and tune up on calling frequencies.
- 2) C.B. ops who come up on 28MHz and break through on my I.F.
- 3) The "old banger" down the avenue with no ignition suppression.
- 4) My own T.V. which radiates like merry h....
- 5) The C.W. op who falls over himself on an auto keyer instead of using a straight key with some "expression" in it.
- 6) The mid-european who comes back to my CQ DX calls and reports 5/9+30 and then shifts 3KHz down and switches in his 1.5KW "after-burner".

Heard on the Air.

"Oh, 'ang about a bit Charlie, me mike's stopped working..... please give me a signal report, back to you".

"My XYL makes terrible tea and I used that last cup to water the vertical...trouble is ... she saw me doing it, so now I have to make it myself".

On 2m just after the Class B licences were given the go ahead for morse transmissions, many of them used audio oscillators, keyed and playing straight into their mikes;---"Fred, your sending is quite good and all that but there, I am getting a lot of key clicks over to you". "Oh, sorry Alan, its my false teeth because I'm mouthing the dots and dashes as I send them".

On 40m the other day :- "Antonio, I hope you will not mind my saying so, but your transmission is spreading badly and very difficult to copy "..... straight back on VOX came;- "O.K.,O.K. my dear friend I turn uppa da power so it 'elpa you, Luk".

I still think the one Ela overheard is the best " my name is Mike, I spell for you, Mike, India,".

73, Brian, G3CVI.

CLUB NET

By request, the starting time of the 2 metre FM net has been changed from 7.15pm to 8.00pm, local time, to suit the domestic arrangements of a number of the participants. In addition, an alternative frequency of 145.225MHz has been proposed if the regular 145.275MHz is already occupied. Please join us for the regular exchange of information on the Tuesdays between the club meetings.

73 from Roy & Ela, G3PMX & G6HKM

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COMMITTEE MEETING

The July Committee Meeting will be held in the Marconi College Residence at 7:30pm on Wednesday, 13th August. You are most welcome to join us.

DF NEWS - Dick G3WHR.

The third Chelmsford event took place on 20 June when G3WMM/P was the hidden station. Most teams obtained good bearings from the start, but subsequent bearings gave problems. They just wouldn't cross in a wood, or on a footpath, railway track, etc; all the usual places. Instead they crossed somewhere in Colchester town centre. Confusion reigned supreme, there were df cars going in all directions as more and more bearings were plotted. Time passed and the transmissions became longer and more frequent. Finally, the teams converged on a scrap of wasteland near the bottom of North Hill. Here the river prevented access from the road, so everyone went running through the side streets looking for a way in. We couldn't even find Mike Hawkins' car to use as a pointer to the entrance. By the time I arrived there was a well trodden path to the riverbank, even so I went past the transmitter and only found it by the huge grin on Mike's face.

Later, at the pub, Mike told us about his NEW Car.

RESULTS

1 Frank Pearson	8.40
2 Peter LARBALSTIER	8.41
3 Paul Clark	8.42
4 Ian Butson	8.44
5 Alan Williams	8.46
6 Roy Emeny	8.54
7 Dick Brooks	8.57
8 Andrew Mead	8.59

THIS MONTHS EVENTS

3 August	RSGB Qualifying Event Mid-Thames
8 August	Colchester
17 August	RSGB Qualifying Event Coventry
29 August	Colchester

TOP BAND DIRECTION FINDING - THE INSIDE STORY! - Andrew G4KQE.

After one of the DF events earlier in the season. Ian G4HKC asked me if I would like to be the hidden station for one of the Colchester Friday evening events. Seeing the opportunity to "get my own back" and to have a go at setting up a portable station me and my driver/fellow bush-beater, Dick G4ICP readily agreed to hide on July 4th.

Much study of O.S. Map 168 (Colchester & Blackwater) followed, and we decided to have a look at the Wickham Bishops area, as there are several woods and the River Blackwater running through a wooded area.

About two weeks before the event we had a look at the river, as a footpath ran alongside it. The 'wooded area' on the map turned out to be a plantation of willow trees, therefore not much cover but there was a really thick hedge near the footpath which, coupled with the fact that the 'run-in' by competitors would be about a mile, would have been a superb site. Unfortunately, there were 'Private Property' signs around and we were not sure whether that included the thicket, so we abandoned that site but not before a close examination of the old wooden railway viaduct over the river.

The viaduct reminded me of the old track bed of the Maldon-Witham railway which is visible from the road near Witham Hall, so we headed in that direction and down a lane to the old church. The track bed is now well overgrown, but it is popular with walkers, thus being a well defined footpath. We walked along the track bed until we came to a really thick hawthorn thicket, and we knew then that we had found our site.

The next evening I saw Dick G3WHR and collected his DF kit, containing everything necessary to set up a hidden station, from transmitter and ATU, right down to polythene bags in case it rains, and even a can of aerosol spray of insect repellent!

A week before the event we set about trying out the site. A long aerial was put up. We didn't know at the time, but it was about 420' long. Two pairs of PF1 pocketphones were most useful for keeping in touch at each end of the aerial wire.

The transmitter loaded up a treat, showing that the aerial was fairly high impedance. I then drove to Fordham Heath with my DF set to see if I could hear the signal. We used GB3DA to maintain contact with VHF sets. To our dismay the signal was very weak, and not really usable, even in a lay-by half way back on the A12 the signal was still weak.

We then dismantled the station and set off to find that other important ingredient of a DF hunt - The Pub. The Green Man in Wickham Bishops was chosen, and we had to try it out.

Over a beer we discussed our result, and decided we had several options, one of them being to try a resonant aerial and we decided on a quarter-wave, with perhaps a quarter-wave counterpoise running in the opposite direction.

Midweek before the event a quarter-wave was measured and cut, and the night before we went back to the track-bed to put the quarter-wave up, to cut our way into the bushes and to put the earth stake in really well. Half a gallon of water was poured on the earth stake to increase conductivity.

The transmitter was loaded, this time showing a low impedance aerial, back up to Fordham Heath, again keeping in contact via GB3DA, and this time when Dick keyed the transmitter...not a bight! Nothing, we tried again at Kelvedon, again nothing. Dick connected the counterpoise so we effectively had a dipole ...nothing. So very dejectedly we packed up, leaving the aerial up and earth stake in.

The evening of the 4th came and we decided to connect the rest of the reel of wire to the quarter-wave, as at least we had got a signal to the start on that aerial. Another half gallon of water was tipped on the earth stake. This time the 420' aerial loaded with less impedance than before, and it was with a great deal of hope and praying that Dick sent "Test DF..." on the key at 7.30pm. We had agreed with Dick G3WHR that we would